Compound	Phase III Oct. 2010	Phase IV April 2011	Phase V April 2012 EPAMW01 0412 4	Phase V April 2012 EPAMW01 0412	USGS MW01 (1.5 bh volume) (pres, unpres) Replicate (pres, unpres)	Phase V April 2012 EPAMW01 0412 7	Phase V April 2012 EPAMW01 0412 10	USGS MW01 (3 bh volume)
Borehole Volumes		**0.70**	**1.44 1.49**	**1.56 1.71**		**2.38 2.42**	**3.03 3.14**	
Methane	16000	17930	NM	17300	27500, 27000 30500, 27000	NM	18800	25500, 20000 27000, 22000
Ethane	2230	2950	NM	2380	3600, 3800 4000, 3800	NM	2270	3200, 2600 3300, 2800
Propane	790	1250	NM	763	1400, 1300 1300, 1100	NM	715	1100, 1000 1000, 970
Dissolved Organic Carbon	8510	9430	NM	5630	4.3 (6), 4.4 (6)	NM	3360	3 (6), N
Diesel Range Organics	634	924	555	484	E180J, E190J	379	267	E85J, E83J
Gasoline Range Organics	389	592	584	528	700 (4), 1100 (2) 760 (4), 580 (2)	418	328	730 (4), 700 710 (4), 720
BTEX								
Toluene (Shaw)	NM	0.59	<0.50 *(U)*	<0.50 *(U)*	<0.17	<0.50 *(U)*	<0.50 *(U)*	<0.17
Toluene (R8)	0.75	0.56 *(J)*	NM	<0.25 *(U)*		NM	<0.25 *(U)*	
Alcohols								
Isopropanol	NM	212	65.0 *(J)*	69.8 *(J)*	<13	62.6 *(J)*	69.3 *(J)*	<13
Tert butyl Alcohol	NM	<5.0 *(U)*	<5.0 *(U)*	<5.0 *(U)*	<11	<5.0 *(U)*	<5.0 *(U)*	<11
Ketones								
Acetone (R8)	NM	79.5 *(H, J)*	NM	155 *(J)*	<1.9	NM	114 *(J)*	<1.9
Acetone (Shaw)	NM	NM	<5 *(U)*	<5 *(U)*		<5 *(U)*	<5 *(U)*	
4 Methyl 2 Pentanone	NM	2.60 *(H, J)*	NM	1.39 *(J)*	<0.98	NM	0.59 *(J)*	<0.98
2 Hexanone	NM	0.37 *(H, J)*	NM	0.26 *(J)*	<1.7	NM	<0.25 *(U)*	<1.7
Semi Volatiles								
Phenol	10.7	19.0	9.65	8.09 *(J+)*	E10J	6.68	5.42	E6.1J
Benzoic Acid	212	457 *(J)*	735 *(*, J)*	221 *(*)*	340 (4) 360 (4)	310 *(*)*	237 *(*)*	190 (4) 200 (4)
Glycols by HPLC MS MS								
Diethylene Glycol	NM	226 *(J)*	60.0 *(J)*	53.9 *(J)*	ND	34.1 *(J)*	26.4 *(J)*	ND
Triethylene Glycol	NM	46 *(J)*	12.7 *(J -)*	11.5 *(J -)*	ND	4.9 *(J -)*	2.9 *(J -)*	ND
Tetraethylene Glycol	NM	7.3 *(J, B)*	<10 *(J , U)*	<10 *(J , U)*		<10 *(J , U)*	<10 *(J , U)*	
2 Butoxyethanol (R3)	NM	<10 *(U)*	5.1 *(J -)*	3.5 *(J -)*		1.5 *(J -)*	<5 *(J , U)*	

2-Butoxyethanol (R8, SVOC)	<0.25 *(U)*	12.7	<1.0 *(U)*	5.78†		3.49	<1.0 *(U)*	
Surfactants								
MBAS††	NM	NM	<200 *(U)*	<200 *(U)*	E 0.14 (1,J H) E 0.15 (1,J H)	<200 *(U)*	<200 *(U)*	E 0.15 (1, J)
Nonylphenol	NM	NM	0.65 *(J , B)*	0.60 *(J , B)*		0.65 *(J, B)*	0.24 *(J , B)*	
Octylphenol	NM	NM	0.16 *(J)*	0.14 *(J)*		0.10 *(J)*	0.05 *(J)*	
Acetate	NM	8050	NM	3420 *(*)*		NM	6080	

Table 2. Organic compounds in groundwater from MW02 (concentrations in µg/L).

Compound	(Oct. 2010) *Phase III*	(April 2011) *Phase IV*	April (2012) EPAMW02-0412-1 *No Purge Sample*	(April 2012) EPAMW02-0412-2 *1 borehole volume sample*	(April 2012) EPAMW02-0412-2 *USGS spilt – 1 borehole volume sample*
Methane	18990	18820	19100	22000	32000
Ethane	3290	2550	3060	3070	4900
Propane	1820	2260	1580	1780	2200
Dissolved Organic Carbon	14500	19700	19400	15500	13000
Diesel Range Organics	1440 *(J)*	4050	4150	2100	670
Gasoline Range Organics	3710	2800	4500	5290	6800
BTEX					
Benzene	246	183	166	232	250
Toluene	617	482	402	607	690
Ethylbenzene	67.0	68.7	61.1	101	100
Xylenes	750	805	710	1139	1260
Trimethylbenzenes	105	157	142	254	271
Alcohols					
Isopropanol	NM	581	862	802	<800 *(U)*
Tert-butyl Alcohol	NM	4470	5910	6120	6300
Ketones					
Acetone	NM	641 *(H)*	982 *(J)*	157 *(J)*	350
2-Butanone	NM	120 *(H)*	208 *(J)*	86.2 *(J)*	<120 *(U)*
Semi-Volatiles					
Phenols	82.3	64.9	131.3 *(J)*	102.3	156
Naphthalenes	3.22	6.10	10.6	13.2	17.4 *(J)*
Bis(2-ethylhexyl)phthalate	6.76	2.17	3.52 *(J)*	2.10	3.6
Benzoic Acid	244	209 *(J)*	513	110 *(*)*	38 *TIC (J)*
Glycols by HPLC-MS-MS					
Diethylene Glycol	NM	1570 *(J)*	1260 *(J)*	378 *(J)*	<25000 *(U)*
Triethylene Glycol	NM	310 *(J)*	262 *(J)*	72.3 *(J)*	<25000 *(U)*
Tetraethylene Glycol	NM	27.2 *(J, B)*	22.6 *(J)*	3.6 *(J)*	NM
2-Butoxyethanol	NM	<10.0 *(U)*	6.8 *(J)*	<5.0 *(U)*	*TIC*
Surfactants					
Nonylphenol	NM	NM	28 *(H, J)*	7.4-7.9 *(J)*	NM
Octylphenol	NM	NM	2.9 *(H, J)*	0.5-0.7 *(J)*	NM
MBAS	NM	NM	<0.20 *(U)*	<0.20 *(U)*	0.12 *(J)*
Acetate	NM	4310	4800	2840 *(J)*	NM

Table Notes: NM – not measured. TIC – tentatively identified compound. See Section A for list of data qualifiers. BTEX compounds for Phase IV and V are from EPA Method 5021A plus 8260C; for Phase III EPA Method 5035 plus 8260C was used. A comparison between the two methods for Phase V spilt samples is presented in Section B. Xylenes = o-xylene + m+p-xylene. Trimethylbenzenes in Phase IV and Phase V = 1,3,5-trimethylbenzene + 1,2,4-trimethylbenzene + 1,2,3-trimethylbenzene. Trimethylbenzenes in Phase III = 1,3,5-trimethylbenzene + 1,2,4-trimethylbenzene. Alcohols determined by EPA Method 5021A plus 8260C. Ketones determined by Method 5035 plus 8260C. Semi-volatile organic compounds determined by EPA Method 8270D. Naphthalenes = 1-methylnaphthalene+2-methylnaphthalene+naphthalene. Phenols = phenol +2,4-dimethylphenol + 2-methylphenol + 3&4 methylphenol. MBAS is methylene blue active substances. Glycols analysis was performed by modifying ASTM D 7731-11 and using EPA SW-846 Methods 8000C and 8321 to allow performance at lower detection limits. Sample results for diethylene glycol, triethylene glycol, tetraethylene glycol, 2-butoxyethanol (R3), are all qualified as estimated because the method is still under development. Nonylphenol and octylphenol analysis followed ASTM D 7485-09 and USGS Method O-1433-01, and are qualified as estimated because the methods are still under development. Acetate determined by HPLC (RSKSOP-112v6).